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(FILE 'HOME' ENTERED AT 13:12:05 ON 30 SEP 1999)

FILE 'CA' ENTERED AT 13:12:11 ON 30 SEP 1999

L1 15 S LIBAR?
L2 44043 S LIBRAR?
L3 2075 S L2 AND NUCLEIC ACID
L4 2 S L3 AND BIOACTIVE(5W) (AGENT# OR COMPOUND)
L5 2073 S L3 NOT L4
L6 0 S L5 AND FACS(5W) MACHINE
L7 4 S L5 AND CELL?(5W) PHENOTYPE

> s libar?

L1 15 LIBAR?

=> s librar?

L2 44043 LIBRAR?

=> s l2 and nucleic acid

81194 NUCLEIC
2327310 ACID
51037 NUCLEIC ACID
(NUCLEIC(W)ACID)

L3 2075 L2 AND NUCLEIC ACID

=> s l3 and bioactive(5w) (agent# or compound)

9311 BIOACTIVE
800106 AGENT#
47301 COMPOUND
352 BIOACTIVE(5W) (AGENT# OR COMPOUND)

L4 2 L3 AND BIOACTIVE(5W) (AGENT# OR COMPOUND)

=> d 14 ab

L4 ANSWER 1 OF 2 CA COPYRIGHT 1999 ACS
AB Methods and compns. for screening for transdominant effector peptides and RNA mols. selected inside living cells from randomized pools are provided.
Thus, a **nucleic acid library** is introduced into cells and the cells are screened for cells with altered phenotype, said altered phenotype being due to the presence of a transdominant **bioactive agent** encoded by the **nucleic acid**. The **nucleic acid library** may be introduced by retroviral vector into mammalian cells. The **library** may encode randomized peptides fused to other peptides/proteins, such as presentation sequences, signal sequences, membrane-anchoring sequences, and subcellular localization sequences. Interleukin-3-dependent cell line Baf/3 was infected with retroviral expression vectors contg. nucleic acids encoding 5 X 10⁶ random peptides. Cells which are capable of survival upon removal of interleukin-3 from the culture medium contain apoptosis-inhibiting peptides.

=> d 14 1-2

L4 ANSWER 1 OF 2 CA COPYRIGHT 1999 ACS
AN 127:172233 CA
TI Method for screening for transdominant effector peptides and RNA molecules
IN capable of altering the phenotype of a cell
Noaln, Garry P.; Rothenberg, S. Michael
PA Board of Trustees of the Leland Stanford Junior University, USA
SO PCT Int. Appl., 91 pp.
CODEN: PIXXD2
DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9727213	A1	19970731	WO 1997-US1048	19970123
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	CA 2244222	AA	19970731	CA 1997-2244222	19970123
	AU 9717078	A1	19970820	AU 1997-17078	19970123
	EP 877752	A1	19981118	EP 1997-903068	19970123
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
PRAI	US 1996-589109		19960123		
	US 1996-589911		19960123		
	WO 1997-US1048		19970123		

L4 ANSWER 2 OF 2 CA COPYRIGHT 1999 ACS

AN 127:172227 CA

TI Method for screening for transdominant effector peptides and RNA molecules

capable of altering the phenotype of a cell

IN Noaln, Garry P.

PA Rigel Pharmaceuticals, Inc., USA

SO PCT Int. Appl., 91 pp.

CODEN: PIXXDD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9727212	A1	19970731	WO 1997-US1019	19970123
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	CA 2244222	AA	19970731	CA 1997-2244222	19970123
	AU 9717074	A1	19970820	AU 1997-17074	19970123
PRAI	US 1996-589109		19960123		
	US 1996-589911		19960123		
	WO 1997-US1019		19970123		

=> d 14 2 ab

L4 ANSWER 2 OF 2 CA COPYRIGHT 1999 ACS

AB Methods and compns. for screening for transdominant effector peptides and RNA mols. selected inside living cells from randomized pools are provided.

Thus, a **nucleic acid library** is introduced into cells and the cells are screened for cells with altered phenotype, said altered phenotype being due to the presence of a transdominant **bioactive agent** encoded by the **nucleic acid**. The **nucleic acid library** may be introduced by retroviral vector into mammalian cells. The **library** may encode randomized peptides fused to other

peptides/proteins, such as presentation sequences, signal sequences, membrane-anchoring sequences, and subcellular localization sequences. Interleukin-3-dependent cell line Baf/3 was infected with retroviral expression vectors contg. nucleic acids encoding 5 X 10⁶ random peptides. Cells which are capable of survival upon removal of interleukin-3 from the culture medium contain apoptosis-inhibiting peptides.

PI WO 9941371 A1 19990819 WO 1999-US3166 19990212
 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
 DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG,
 KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
 NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
 UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
 FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
 CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1998-23992 19980213

L7 ANSWER 2 OF 4 CA COPYRIGHT 1999 ACS

AN 129:226632 CA

TI Methods for identifying nucleic acid sequences
encoding agents that affect cellular phenotypes

IN Kamb, Carl Alexander; Poritz, Mark A.

PA Ventana Genetics, Inc., USA

SO PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

PI	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	WO 9839483	A1	19980911	WO 1998-US4376	19980227
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	US 5955275	A	19990921	US 1997-812994	19970304
	AU 9865438	A1	19980922	AU 1998-65438	19980227
PRAI	US 1997-812994		19970304		
	US 1997-800664		19970214		
	WO 1998-US4376		19980227		

L7 ANSWER 3 OF 4 CA COPYRIGHT 1999 ACS

AN 126:1924 CA

TI Isolation of genetic suppressor elements (GSEs) from random fragment cDNA
libraries in retroviral vectors

AU Gudkov, Andrei V.; Roninson, Igor B.

CS College Medicine, University Illinois, Chicago, IL, USA

SO Methods Mol. Biol. (Totowa, N. J.) (1997), 69(cDNA Library Protocols),
221-240

CODEN: MMBIED; ISSN: 1064-3745

PB Humana

DT Journal

LA English

L7 ANSWER 4 OF 4 CA COPYRIGHT 1999 ACS

AN 121:155058 CA

TI Characterization of cell phenotype by a novel cDNA
library subtraction system: expression of CD8.alpha. in a mast
cell-derived interleukin-4-dependent cell line

AU Hara, Takahiko; Harada, Nobuyuki; Mitsui, Hideki; Miura, Toru; Ishizaka,
Teruko; Miyajima, Atsushi

CS Res. Inst. Molecular Cellular Biol., DNAX, Palo Alto, CA, USA

SO Blood (1994), 84(1), 189-99

CODEN: BLOOAW; ISSN: 0006-4971

DT Journal

LA English

elements (GSEs) that induce the desired phenotype by suppression of specific genes. GSEs are short (<500 bp) cDNA fragments that produce a phenotype when expressed in **cells**, this **phenotype** is usually opposite to that of the full-length cDNA from which they are derived. GSEs inhibiting recessive genes behave as dominant selectable markers in gene-transfer protocols and can therefore serve as tools for studying recessive mechanisms. There are two types of GSE: antisense-oriented GSEs encoding efficient inhibitory antisense RNA mols. and sense-oriented GSEs encoding functional protein domains that interfere

with the protein function in a dominant fashion. GSEs are isolated by prep. an expression **library** contg. randomly fragmented DNA of the gene or genes targeted for suppression, introducing this **library** into the appropriate recipient **cells**, selecting **cells** with the desired **phenotype**, recovering the inserts from the expression vectors contained in the selected **cells**, and testing the recovered sequences for functional activity. A method is described to do so.

L7 ANSWER 4 OF 4 CA COPYRIGHT 1999 ACS

AB The authors have established a unique variant cell line, MC/9.IL-4, which continuously proliferates in the presence of interleukin-4 (IL-4), from a murine interleukin-3 (IL-3)-dependent mast cell line, MC/9 (referred to as MC/9.IL-3). Compared with MC/9.IL-3 cells, MC/9.IL-4 cells are smaller, lack cytoplasmic granules and metachromasia, carry a very small amt. of histamine, and express fewer high-affinity IgE receptors (IgERs) and IL-3 receptors. To further characterize MC/9.IL-4, the authors developed a novel method to enrich cell type-specific cDNAs by **cDNA library subtraction** and applied it for MC/9.IL-3 vs. MC/9.IL-4. Sequence anal.

of CDNA clones isolated by this technique showed that MC/9.IL-4 cells specifically express CD8.alpha. and expression of mast cell-specific proteases and major histocompatibility complex class II (MHCII) is considerably decreased. It was also noted that responsiveness to the IL-3-agonistic antibody F9 and expression of the transcription factor GATA-2 is diminished in MC/9.IL-4, indicating that MC/9.IL-4 have lost major characteristics of the bone marrow-derived cultured mast cells. Because other T-cell marker antigens, CD8.beta., CD4, Thy-1, were not detected on MC/9.IL-4 cells, MC/9.IL-4 cells may represent an unknown class of hematopoietic cells that express CD8.alpha.. This cell line

will be useful in studies of IL-4-mediated signal transduction, as well as transcriptional regulation of mast cell characteristic genes. This study also demonstrates the effective use of the **cDNA library subtraction** strategy to characterize unknown types of hematopoietic cells at the mol. level.

=> d 17 1-4

L7 ANSWER 1 OF 4 CA COPYRIGHT 1999 ACS

AN 131:140479 CA

TI Use of combinatorial ribozyme **libraries** for determining the function of target genes

IN Keck, James G.; Wong, Justin G. P.

PA Strata Biosciences Incorporated, USA

SO PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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L7 ANSWER 1 OF 4 CA COPYRIGHT 1999 ACS

AB Novel double-stranded DNAs, expression vectors and methods for their use are provided in which the intracellular expression of the double-stranded DNAs is used to alter the phenotype of a target cell so that the function of a target **nucleic acid** that includes a nucleotide sequence encoding a motif of interest can be detd. using a combinatorial ribozyme **library**. The members of the **library** are catalytic RNAs that disrupt the expression of the transcription product

of

the target **nucleic acid**. The combinatorial ribozyme **library** is designed by analyzing a consensus nucleotide sequence coding for a protein motif of interest. Disruption of transcription product expression results in an altered **cell phenotype** which is used to det. the function of the target **nucleic acid**. The specific phenotype or response may be assocd. with normal cellular processes, or it may contribute to the generation of pathogenesis involved in disease development. The compns. find use in high-throughput screens to assign gene functions. When assocd. with a pathogenic phenotype, these genes or their gene products can constitute therapeutic targets for treatment of diseases. The complete sequence of the gene contg. the target **nucleic acid** need not to be known for the method to be used successfully.

L7 ANSWER 2 OF 4 CA COPYRIGHT 1999 ACS

AB A reporter gene is used to identify sequences affecting a **cellular phenotype**. A method or device is used to measure the level of reporter expression. An expression **library** is introduced into the cells, and those cells exhibiting changes in reporter expression

level

are selected. Expression **library** inserts from the selected cells are isolated, to create a **sub-library** enriched for sequences that affect the phenotype reflected by the reporter. Further rounds of **sub-library** introduction and cell selection may be carried out to provide addnl. enrichment. Sequences identified using

this

method may be used to ascertain the identity of addnl. mols. involved in generating the **cellular phenotype**. A plasmid vector expressing the GFP (green fluorescent protein) under control of an .alpha.-factor-responsive element is introduced into yeasts. Under exposure to .alpha.-mating factor, green fluorescent phenotype is obsd.

A

yeast genomic DNA perturbagen **library** is constructed using a vector coding for the BFP (blue fluorescence protein) fused to the perturbagens downstream of the GAL promoter so that galactose induces BFP and perturbagens (proteins, protein fragments, and peptides that

interfere

with cellular functions). When both vectors have been inserted into yeast

cells, galactose will induce blue fluorescence and the .alpha.-mating factor, green. If a perturbagen interferes with the .alpha.-factor signaling pathway, the green fluorescence will disappear from cells previously shown to exhibit green fluorescence before exposure to galactose. Fluorescence-activated cell sorting app. is used to sep. cells.

L7 ANSWER 3 OF 4 CA COPYRIGHT 1999 ACS

AB The identification and functional anal. of recessive genes in mammalian cells have been boosted by the ability to select genetic suppressor